10/880,137

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FILE 'HOME' ENTERED AT 15:46:07 ON 13 JUL 2006

=>  file biosis medline caplus wpids uspatfull
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CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> s nucleic acid (4a) (isolat? or extract?)
   3 FILES SEARCHED...
L1        52805 NUCLEIC ACID (4A) (ISOLAT? OR EXTRACT?)

=> s l1 and surfactant
L2         5463 L1 AND SURFACTANT

=> s l2 and cationic surfactant
L3           47 L2 AND CATIONIC SURFACTANT

=> s l3 an nonionic surfactant
MISSING OPERATOR L3 AN
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l3 and nonionic surfactant
L4           19 L3 AND NONIONIC SURFACTANT

=> s l4 and zinc
L5           11 L4 AND ZINC

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6             7 DUP REM L5 (4 DUPLICATES REMOVED)

=> d l6 bib abs 1-7

L6   ANSWER 1 OF 7  USPATFULL on STN
AN     2006:80498  USPATFULL
TI     Microdevice for performing method of separating and purifying nucleic
       acid
IN     Makino, Yoshihiko, Asaka-shi, JAPAN
       Sakaino, Yoshiki, Asaka-shi, JAPAN
       Sudo, Yukio, Minami-Ashigara-shi, JAPAN
       Abe, Yoshihiko, Asaka-shi, JAPAN
PA     Fuji Photo Film Co., Ltd. (non-U.S. corporation)
PI     US 2006068491      A1   20060330
AI     US 2005-227245     A1   20050916 (11)
```

PRAI JP 2004-278070 20040924
DT Utility
FS APPLICATION
LREP BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747, US
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)
LN.CNT 1532
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A microdevice for performing a method for separating and purifying a nucleic acid, the microdevice comprising: at least one opening; and at least one channel for passing a sample solution, wherein the method comprises: (A) a step of bringing a nucleic acid-containing sample solution into contact with a nucleic acid-adsorbing support having a function of adsorbing a nucleic acid; (B) a step of washing the nucleic acid-adsorbing support with a washing solution in a state of a nucleic acid being adsorbed to the support; and (C) a step of desorbing the nucleic acid from the nucleic acid-adsorbing support by a recovering solution, thereby purifying the nucleic acid; an apparatus for utilizing the microdevice; and a reagent kit for use in the microdevice.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 2 OF 7 USPATFULL on STN
AN 2006:60634 USPATFULL
TI Method for separating and purifying nucleic acid
IN Iwaki, Yoshihide, Asaka-shi, JAPAN
Mori, Toshihiro, Asaka-shi, JAPAN
PA Fiji Photo Film Co., Ltd. (non-U.S. corporation)
PI US 2006051799 A1 20060309
AI US 2005-217339 A1 20050902 (11)
PRAI JP 2004-257202 20040903
JP 2005-253576 20050901
DT Utility
FS APPLICATION
LREP BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747, US
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1848
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acid contained in a sample is highly efficiently recovered at a high recovery ratio by a method for separating and purifying nucleic acid using whole blood as the sample, which is a method for separating and purifying nucleic acid, comprising: preparing a sample solution containing nucleic acid; putting the sample solution containing nucleic acid in contact with a solid phase to allow nucleic acid to be adsorbed to the solid phase; putting a washing solution in contact with the solid phase to wash the solid phase at the state of nucleic acid adsorbed thereon; and putting a elution solution in contact with the solid phase to allow nucleic acid to be desorbed from the solid phase, wherein the step of preparing a sample solution containing nucleic acid comprises at least one selected from the group consisting of vortexing, mixing with inversion, and pipetting.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 3 OF 7 USPATFULL on STN
AN 2006:43228 USPATFULL
TI Compositions, methods, and kits for isolating nucleic acids using surfactants and proteases
IN Greenfield, I. Lawrence, San Mateo, CA, UNITED STATES

PA Applera Corporation, Foster City, CA, UNITED STATES (U.S. corporation)
PI US 7001724 B1 20060221
AI US 2000-724613 20001128 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Riley, Jezia
LREP Bortner, Scott, Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.
CLMN Number of Claims: 47
ECL Exemplary Claim: 1
DRWN 14 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 1556
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides compositions and methods for releasing and for isolating nucleic acids from biological samples, preferably from whole tissue, using cationic surfactants and proteases. The surfactant -protease combinations, when used with whole tissue, macerate the tissue, lyse individual cells, release nucleic acids, and inactivate nucleases. Kits for isolating nucleic acids from biological samples, particularly from whole tissue, are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 4 OF 7 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN DUPLICATE 1
AN 2005-099961 [11] WPIDS
CR 2003-370730 [35]
DNN N2005-086813 DNC C2005-033420
TI Isolating nucleic acids from a biological sample by combining the sample with at least one cationic surfactant, at least one protease, and a buffer, to form a reaction composition.
DC A89 B04 D16 P53
IN GREENFIELD, L; MONTESCLAROS, L
PA (APPL-N) APPLERA CORP
CYC 1
PI US 2005009045 A1 20050113 (200511)* 58
ADT US 2005009045 A1 CIP of US 2000-724613 20001128, Cont of US 2001-997169 20011128, US 2004-800137 20040311
FDT US 2005009045 A1 Cont of US 6762027
PRAI US 2001-997169 20011128; US 2000-724613 20001128; US 2004-800137 20040311
AN 2005-099961 [11] WPIDS
CR 2003-370730 [35]
AB US2005009045 A UPAB: 20050217
NOVELTY - Isolating nucleic acids from a biological sample comprising combining the sample with at least one cationic surfactant, at least one protease, and a buffer, to form a reaction composition, incubating the reaction composition at a temperature suitable for releasing nucleic acid from the biological sample, and isolating the released nucleic acid, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) releasing nucleic acids from a biological sample, comprising:

(a) combining the sample with at least one cationic surfactant, at least one protease, and a buffer, to form a reaction composition; and

(b) incubating the reaction composition at a temperature suitable for releasing the nucleic acids from the biological sample; and

(2) a kit for obtaining nucleic acid from a biological sample comprising at least one cationic surfactant and at least one protease.

USE - The methods and compositions of the present invention are useful for isolating and releasing nucleic acids from biological samples, including whole tissue.

ADVANTAGE - The methods of isolating nucleic acids in the present invention, as compared to prior art, reduces the time needed for sample preparation, decreases potential safety risks posed by multi-step

procedures and provides high integrity high molecular weight nucleic acids.
Dwg.0/30

L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
AN 2002:869079 CAPLUS
DN 137:365972
TI Isolation of nucleic acids from biological samples using surfactants and proteases
IN Greenfeld, I. Larry
PA PE Corporation, USA; Applera Corporation
SO PCT Int. Appl., 129 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002090539	A2	20021114	WO 2001-US45071	20011128
	WO 2002090539	A3	20030807		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 7001724	B1	20060221	US 2000-724613	20001128
	CA 2429941	AA	20021114	CA 2001-2429941	20011128
	EP 1354036	A2	20031022	EP 2001-274041	20011128
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2005501523	T2	20050120	JP 2002-587600	20011128
PRAI	US 2000-724613	A	20001128		
	WO 2001-US45071	W	20011128		

AB The invention relates to compns. and methods for isolating nucleic acids from biol. samples, including whole tissue. The method comprises contacting the biol. sample with a disrupting buffer containing proteases (e.g., Proteinase K) and a cationic surfactant (e.g., CTAB). The cationic surfactant is then neutralized either by its removal or by use of a second nonionic surfactants (e.g., Tween 20). Nucleic acids are then isolated by binding to a solid phase, such as glass fiber GF/B filters. The effects of cationic surfactants on activity of proteinase K, and the solubility of surfactants in different chaotropes is investigated to identify optimal cationic surfactants and salts. The invention also provides kits for isolating nucleic acids from biol. samples.

L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
AN 2002:907069 CAPLUS
DN 138:1959
TI Compositions, methods, and kits for isolating nucleic acids using surfactants and proteases
IN Greenfield, Lawrence; Montesclaros, Luz
PA Applera Corp., USA
SO U.S. Pat. Appl. Publ., 57 pp., Cont.-in-part of U.S. Ser. No. 724,613.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	US 2002177139	A1	20021128	US 2001-997169	20011128
	US 6762027	B2	20040713		
	US 7001724	B1	20060221	US 2000-724613	20001128
	US 2005009045	A1	20050113	US 2004-800137	20040311
PRAI	US 2000-724613	A2	20001128		
	US 2001-997169	A1	20011128		

AB The invention relates to compns. and methods for isolating nucleic acids from biol. samples, including whole tissue. The invention also provides kits for isolating nucleic acids from biol. samples. A method for obtaining nucleic acid from a biol. sample and binding the nucleic acid to a solid phase comprises (a) contacting the biol. sample with a disrupting buffer, wherein the disrupting buffer comprises a protease and a cationic surfactant; (b) substantially neutralizing the cationic surfactant; and (c) binding the nucleic acid to a solid phase. Genomic DNA was isolated from several rat tissues and mouse tail using a digestion solution containing 1 mg of Proteinase K, 1 % DTAB, 100 mM Tris-HCl (pH 8.0), 20 μM ATA, and 20 mM CaCl2 and incubating for 60 min at 65°. Most of the tissues were effectively digested in less than one hour. Digestion of liver, brain and kidney were about 95 % complete after one hour. Following digestion, binding solution containing 5 M GuSCN, 50 mM MES (pH 6.0), 20 mM EDTA, and 6 % Tween 20 was then added to each sample and the samples were placed on GF/B filter membranes for washing and recovery of DNA.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 7 USPATFULL on STN
AN 2002:88231 USPATFULL
TI Methods and compositions for assaying analytes
IN Yuan, Chong-Sheng, San Diego, CA, United States
PA General Atomics, San Diego, CA, United States (U.S. corporation)
PI US 6376210 B1 20020423
AI US 1999-347878 19990706 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Achutamurthy, Ponnathapu; Assistant Examiner: Saidha, Tekchand
LREP Morrison & Foerster LLP
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 9004
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for assaying analytes, preferably, small molecule analytes. Assay methods that employ, in place of antibodies or molecules that bind to target analytes or substrates, modified enzymes, called substrate trapping enzymes. These modified enzymes retain binding affinity or have enhanced binding affinity for a target substrate or analyte, but have attenuated catalytic activity with respect to that substrate or analyte. The modified enzymes are also provided. In particular, a mutant S-adenosylhomocysteine (SAH) hydrolases, substantially retaining binding affinity or having enhanced binding affinity for Hcy or SAH but having attenuated catalytic activity, are provided. Also provided are methods, combinations, kits and articles of manufacture for assaying analytes, preferably small molecule analytes such as inorganic ions, amino acids (e.g., homocysteine), peptides, nucleosides, nucleotides, oligonucleotides, vitamins, monosaccharides (e.g., glucose), oligosaccharides, lipids (e.g., cholesterol), organic acids (e.g., folate species, bile acids and uric acids).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.